The University of Chicago

# CULTURAL DIFFERENTIALS IN INTELLIGENCE

A PART OF A DISSERTATION SUBMITTED TO THE FACULTY OF THE DIVISION OF THE SOCIAL SCIENCES IN CANDIDACY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF EDUCATION

1942

By

FRANK J. KOBLER

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# CULTURAL DIFFERENTIALS IN INTELLIGENCE*[1]

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FRANK J. KOBLER

The purpose of this study is to contrast the intelligence of three culturally "homogeneous" groups of children who live in different "community groups" on Chicago's Near North Side. The study was designed to evaluate the effect of the environments upon the differences of intelligence test scores. The assumption was accepted that demonstrable knowledge is socially determined and as a consequence varies in different social situations. Since learning is partially determined by the opportunities to learn, it is obvious that any cultural group has many intellectual resemblances which in large part characterize the group. We may, therefore, find norms of intelligence that differ from group to group, and this may be explained in given instances in terms of differential experiences.

Since it is assumed that cultural factors are important conditioners in the development of intelligence, it seems necessary to make certain distinctions regarding the nature of intelligence and of culture.

It is logically useful for purposes of analysis to distinguish mental behavior as the intellectual power, the idea, and the act of intelligence. Intellectual power implies possible behavior. That there are differences in this power is demonstrated in its different manifestations. The idea in turn involves systematized understanding. This is synonymous with the notion of culture, an entity that arises as a result of communication. Culture as here defined is intelligence in action. The act of intelligence is a neutral phenomenon—a form in

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[1]Part of a dissertation submitted to the faculty of the Division of the Social Sciences in candidacy for the degree of doctor of philosophy, the University of Chicago. Assistance in the preparation of these materials was lent by the Works Projects Administration O.P. 665-54-3-387. Particular acknowledgments are due to my doctoral committee at the University of Chicago, Mandel Sherman, Ernest W. Burgess, and Newton Edwards, for encouragement and guidance in this study.

which the idea functions. It represents a mode or way rather than anything inherent in the nature of intelligence (4, pp. 17-19).

From what has been said it should be evident that this study is principally concerned with the analysis of culture defined as systematized understanding. The content of the mind as determining the behavior or act of the individual or group is the basis of this analysis. The act of intelligence is the object matter of the tester concerned with the uniformities and variations of behavior regardless of the content. The intellectual power is the object matter of the geneticist or physiologist, whereas the idea or the content, or more specifically, culture, is more properly the province of the anthropologist. All these aspects of intelligence may be studied profitably through their own techniques. Only a union of the judgments resulting from such studies can provide a completely satisfactory understanding of mental behavior.

The stated emphasis of this study leads to a more detailed analysis of the concept of the idea. This concept of the idea is a part of mind or as it has been more succinctly phrased, the self, arises in communication as a result of the development of significant symbols. If a thing has a common social meaning which is focused or crystallized for an individual he has acquired knowledge or a modification of mind. This idea has developed through the social process. As Mead suggests, the other is as immediate as the self, both are carried in consciousness. To paraphrase his statement: by placing both phases of the social process in the same consciousness, by regarding the self as the ideas entertained by others of the self, and the other as the ideas entertained of him by the self, the action of the others upon the self and the self upon the others becomes simply the interaction of ideas upon each other within the mind.[2]

It is therefore possible to suggest that the categories of thought are social. Thinking is a socially conditioned phenomenon. Reality, socially conditioned, is logically the source of behavior. Since logical thought is the structure of concepts it follows that concepts which are social create thought that is social. However, it is important to remember that thought is both general and particular. It is the particular which is the essentially social or personal. This is not true

[2]The conception of the social self as here developed is largely the work of G. H. Mead, pioneer American social psychologist.

of the concept. The latter is held in common and it is communicable.[3]

This should mean that the thoughts or ideas of a person are comprehensible only in a social perspective. Therefore, when an analysis of the intelligence of different groups is proposed it should emphasize the social milieu in which this intelligence rises. Only those products of thinking exist for the individual which are the special province of the society in which thinking occurs.[4]

Since the intelligence test data were evaluated in terms of the cultural data, certain of the methods and results of these cultural materials are presented. The study of these social data involved four general procedures. The first was an analysis of the census and related community data pertinent to these three geographic locations. The second was a social relations and home background questionnaire. The third was an inventory of neurotic behavior or emotional stability scale. The fourth was a community cultural inventory or socio-anthropologic scale. Each of these will be discussed in turn.

The three cultural groups evaluated in this study are related in a broader spatial pattern that has been the object of research by several students of society. These students have shown that it is more than coincidence that structures the life of a large city. Customarily this life centers about a central business district and radiates outward revealing certain contrasting patterns of living. The behavior expressed in these areas is least sophisticated just beyond the center of the city and becomes gradually more sophisticated towards the periphery of the city. A number of facts attest to the existence of such a continuum. The cultural data collected in this study tend to strengthen and broaden this hypothesis. The spatial arrangement of the groups as objectified in the census tract groupings reveal the following pattern: the Negro, Italian, Irish and German groups in that order form the continuum of sophistication on the Near North Side. That is to say the Negro group lives closest to the central business district with the other groups living approximately next to one another in the indicated sequence. This is a significant spatial relationship because all of our collected phenomena can be understood in

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[3]Emile Durkheim in his book, *La Vie Religieuse,* develops this idea with precision and clarity.

[4]This idea has been developed in great detail by Max Weber and Karl Mannheim.

terms of this sequence. That is to say, illiteracy decreases, intelligence increases, the incidence of radio ownership increases, and so on through the entire gamut of observable phenomena as one examines first the Negro group, then the Italian, the Irish, and the German in the order of increased geographic distance from the center of the city. The constantly recurring manifestation of this pattern in the cultural data is one of the major demonstrations of this paper.[5]

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[5]The conceptions developed and applied by Robert Redfield in his ethnological studies have been instrumental in this aspect of the study.

It is recognized that earlier contrasts of this type reported in the literature have been of the same civilization in its different stages of sophistication, and that our work is with three different cultural groups who are assumed to have reached different stages of this development. However, we believe that this comparison is legitimate and meaningful in terms of our basic assumption, namely, the personalized social definition of reality. Thus, there is an observable difference with regard to secularity between the Italian and the German as well as between the tribal Maya and the city Maya.

Further, the answer to this question lies in a distinction that is logical. It indicates the operation of certain laws of social becoming in different fields of application. There are phenomena pertinent to a larger society and other more esoteric phenomena characteristic of the components of this society. Thus there are realities constituting and peculiar to all or more than one group and those peculiar to both groups. Each has its own logical validity. We deal with laws particularly applicable to the German group because the phenomena that give rise to these laws are found only among the Germans. If, on the other hand, we discover a series of laws applicable to all of our groups we have a different meaning. It remains only that we find the same laws holding true for the several groups.

Thus, a society is a folk or peasant society and it is likewise a national group. It is an urban society and at the same time a British or French group. The participation in the two types of experiences furnished by these differently structured social groups presents individuals with different attitudes and thus with different values. The attitudes and values will converge in so far as the group is urban and they will diverge in proportion to the centripetal force exercised by localized values. *De la division du travail* indicates how local cultures adjust to urban civilization. They adjust differently but along similar lines and to similar ends.

For example, let us suppose an interest in the amount of secularization present in any of several groups. We examine the groups and predicate either more or less secularity. Thus the groups would be found at different places on the hypothetical continuum of secularization and each group would be characterized by different cultural traits that may place it, based on the criteria of secularity, at a specific spot on this continuum. Secularization is not an aspect of culture per se but an index of a culture change. The same applies to homogeneity, another aspect of urbanization. The essence of urbanization is change or becoming. Culture implies an understanding or a meaning inherent in that particular moment of time. Logically it is being as opposed to becoming. To say that two groups of people have a certain amount of folklore within each group is different from indicating the varying characteristics of this folklore as between the several groups. One group might conceivably be more the carrier of a common tradition,

The basic test data were obtained from a group of 498 Italians, 369 Germans, and 149 Irish children of foreign-born parents. The additional samples that form part of this investigation are ancillary data which are employed merely to strengthen the general hypothesis. They include 155 second generation children, 62 children who had to be given a non-verbal test, and a group of 593 children for whom complete data were not available.

All children were given the Kuhlmann-Anderson or the Chicago Non-Verbal tests. The examinations were given in grades four through eight for the six parochial schools in the area. The mean intelligence score for the entire area was 96.6, with a standard deviation of 13.1 and an error of estimate of 0.38. The average score for the girls was 1.47 points higher than the average score for the boys. The medians reveal a closely similar picture. The data also show a progressive rise of the mean intelligence test scores as the geographic location of the tested group varies from the center to the periphery of the city. Thus, School *A*, with the lowest mean *IQ* is nearest the loop, whereas School *F*, with the highest mean *IQ* is furthest from the city's loop area. The mean intelligence score rises from 89 in the "nearest to the loop" group to 102 in the "furthest from the loop" group (See Table 1).

The relationship between age and intelligence for all the children in these areas may be described briefly in the suggestion that there was no important drop in the intelligence quotient for the 11- through the 14-year age levels. The differential for this four year range for the entire group is 3.5 intelligence quotient points. The data do not indicate any significant differences for sex in any age group.

The above figures are for the entire group of cases. Since the major purpose of this study is to contrast the three dominant cultural groups, we have deleted from our sample those children who are not of German, Italian, or Irish parentage.

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than another, which would be an important difference and yet their common traditions could be radically different which is also an important consideration. This is intelligible in the light of the recency of migration, the relative primitiveness of the group in the place from which it migrated and lastly, from its position in the spatial pattern of the city. Illustrative of this point is the well-known notion of the close self-affinity of a folk group. Thus group *A* has most of its socially intimate and compelling activities centering about the local church (whatever they may be), whereas the activities of Groups *B* and *C* are more diversified and have broader ramifications. Numerous similar phenomena could be adduced.

TABLE 1

THE MEAN INTELLIGENCE TEST QUOTIENTS FOR EACH OF THE PAROCHIAL SCHOOLS, GRADES 4 THROUGH 8, ON THE NEAR NORTH SIDE

| Index | | Number | Mean | Standard deviation | Standard error of mean | Median | Standard error of median |
|---|---|---|---|---|---|---|---|
| Total schools | | 1,171 | 96.62* | 13.06 | 0.38 | 97.46 | 0.48 |
| Total boys | | 590 | 95.89 | 13.14 | 0.54 | 96.76 | 0.68 |
| Total girls | | 581 | 97.36 | 13.00 | 0.54 | 98.19 | 0.68 |
| | Boys | 29 | 90.36 | 10.68 | 1.98 | 91.25 | 2.48 |
| School *A* | Girls | 27 | 89.31 | 15.48 | 2.98 | 91.88 | 3.73 |
| | Total | 56 | 89.90 | 13.23 | 1.77 | 91.50 | 2.22 |
| | Boys | 14 | 90.93 | 12.54 | 3.35 | 92.50 | 4.20 |
| School *B* | Girls | 25 | 91.30 | 13.98 | 2.80 | 89.50 | 3.51 |
| | Total | 39 | 91.17 | 12.68 | 2.03 | 90.56 | 2.54 |
| | Boys | 136 | 87.88 | 12.02 | 1.03 | 88.33 | 1.29 |
| School *C* | Girls | 142 | 90.77 | 11.36 | 0.95 | 90.91 | 1.19 |
| | Total | 278 | 89.36 | 11.77 | 0.71 | 89.66 | 0.89 |
| | Boys | 34 | 96.85 | 11.13 | 1.91 | 97.65 | 2.39 |
| School *D* | Girls | 40 | 98.50 | 11.79 | 1.87 | 97.50 | 2.34 |
| | Total | 74 | 97.74 | 11.52 | 1.34 | 97.59 | 1.68 |
| | Boys | 119 | 95.42 | 12.38 | 1.13 | 96.08 | 1.42 |
| School *E* | Girls | 100 | 97.70 | 12.56 | 1.26 | 99.20 | 1.58 |
| | Total | 219 | 96.46 | 12.51 | 0.85 | 97.34 | 1.07 |
| | Boys | 258 | 101.09 | 11.06 | 0.69 | 101.90 | 0.86 |
| School *F* | Girls | 247 | 102.31 | 11.63 | 0.74 | 103.09 | 0.93 |
| | Total | 505 | 101.65 | 11.80 | 0.53 | 102.49 | 0.66 |

*Mean of all the school averages equals 94.46.

The average chronological age for the three above named groups is 12 years. The German group is the youngest and the Italian group is the oldest. The critical ratio of the standard error of the difference on age for the German-Irish is 2.03, for the German-Italian it is 3.89, and for the Irish-Italian group it is 0.85. The spread of the groups of data in terms of the standard deviation is closely comparable. The reliability of the mean ages as judged by the standard error is high.

For these cultural groups the intelligence test scores were as follows: for the German group the mean score was $102.2 \pm 0.61$; for the Irish group this score was $98.46 \pm 0.54$; and for the Italian group the mean score was $91.87 \pm 0.54$. The critical ratio of the difference for the German-Italian group was 2.97, for the Irish-Italian group it was 5.29, and for the German-Italian group it was 12.74. In the commonly utilized statistical sense all these differences are significant.

A further analysis of the data in these terms shows no evidence

TABLE 2

THE MEAN INTELLIGENCE TEST QUOTIENTS OF THE GERMAN, IRISH, AND ITALIAN CHILDREN ON THE NEAR NORTH SIDE

| All grades | Number | Mean | Standard deviation | Standard error of mean | Median | Standard error of median |
|---|---|---|---|---|---|---|
| | | | *German* | | | |
| Boys | 192 | 102.00 | 12.33 | 0.89 | 103.19 | 1.12 |
| Girls | 177 | 102.52 | 11.00 | 0.83 | 103.52 | 1.04 |
| Total | 369 | 102.25 | 11.71 | 0.61 | 103.35 | 0.76 |
| | | | *Irish* | | | |
| Boys | 75 | 97.17 | 12.36 | 1.43 | 97.61 | 1.79 |
| Girls | 74 | 99.77 | 14.82 | 1.72 | 100.96 | 2.16 |
| Total | 149 | 98.46 | 13.70 | 1.12 | 99.10 | 1.40 |
| | | | *Italian* | | | |
| Boys | 243 | 90.88 | 11.91 | 0.76 | 92.04 | 0.76 |
| Girls | 255 | 92.81 | 12.11 | 0.76 | 93.53 | 0.95 |
| Total | 498 | 91.87 | 12.05 | 0.54 | 92.77 | 0.68 |

of any consistent rise or fall of *IQ* from grade to grade. No important sex differences are evident.

In addition to these group comparisons a detailed analysis of all the data was made. The critical ratios of the differences for the Irish, German, and Italian children were calculated for each of the test items.

It should appear obvious that a test of intelligence would, if it were constructed of a variety of items, produce differential results. The various factors or test item results would be loaded differently since it is anticipated that the differences in experience of the group will result in different kinds and intensities of responses to items tapping that experience. This has been the rationale behind the specific item analysis. In addition, it was felt useful to group the various types of tests into certain factors which could likewise be used for comparisonal purposes. The factors employed in this description of mental processes were spatial-visual, number, perception, verbal, and memory.

Under the spatial-visual section were grouped tests characterized as code words, form completion, and form discrimination. Division and numerical reasoning were grouped under number. The perceptual group included the tests of similarities and pattern analogies. The verbal category was composed of the tests of disarranged words

and sentences, analogies, controlled association, similarities, and opposites. The test of word recognition was placed in the memory category.

With this system of categories, it was determined for all test items whether the one group had more right, more wrong, or more omitted than another group; and the statistical significance which could be attached to these proportional differences. For the purposes of this study a difference of four times the probable error was designated an "alpha" difference; a difference of three to four times the probable error a "beta" difference; and a difference of two to three times the probable error as a "gamma" difference. Table 3 is selected from the basic set of tables that describe this differentiation.

This was the method of analysis of the test data. A detailed report on the items and test is presented in the thesis. A briefer recapitulation of the findings will provide the essential details of the results.

The groups of factors with the attendant proportion of the items that they represent are spatial-visual 24.1; number 16.5; perception 7.6; verbal 47.9; and memory 3.9. In general, we have found a fairly close agreement with the tests within any single generic group. For certain tests, however, we find divergences from the general pattern. This would indicate that such a test has been illogically placed within a category.

First, as to the comparison between the Irish and the Germans. In general, we may conclude that there were no differences of any importance with the exception of the number category. Here the differences were large and important. There were no memory or perception differences of any significance. The verbal differences were nearly non-existent and the spatial-visual differences were small. The subtest groups were homogeneous. The omitted items for these two groups show a similar pattern.

The German-Italian test result contrast was essentially different. Here all the differences were in favor of the Germans and all of them except the perception group were significantly important. The largest differences were those for number; the most important was the verbal difference. There is some important sub-test group lack of homogeneity but it does not offset the general findings. One-half of all the items or more show significant differences in favor of the Germans. The omitted items differ in like manner. The only differ-

TABLE 3

THE PERCENTAGE OF GERMAN CHILDREN WHO SURPASSED THE ITALIAN CHILDREN FOR THE NUMBER CORRECT IN A TOTAL OF 261 TEST ITEMS WITH THE PROPORTIONS CORRECT IN TERMS OF VARIOUS DEGREES OF STATISTICAL SIGNIFICANCE FOR CERTAIN PSYCHOLOGICAL FACTORS POSTULATED FROM THE TEST

| | Proportions correct—German over Italian | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Boys | | | | Girls | | | | Total | | | |
| Test factor | a | b | g | Tot. | a | b | g | Tot. | a | b | g | Tot. |
| Spatial visual | 15.9 | 36.5 | 54.0 | 85.7 | 39.6 | 57.1 | 71.4 | 95.2 | 50.7 | 68.2 | 79.3 | 92.0 |
| Code words | 21.4 | 38.1 | 59.5 | 88.1 | 54.7 | 73.8 | 83.3 | 97.6 | 64.2 | 80.9 | 85.7 | 95.2 |
| Form completion | .... | 26.7 | 33.4 | 80.0 | 6.7 | 13.4 | 40.1 | 86.7 | 13.3 | 33.3 | 60.0 | 80.0 |
| Form discrimination | 16.7 | 49.9 | 66.6 | 83.3 | 16.7 | 50.0 | 66.7 | 100 | 49.9 | 66.6 | 83.3 | 100 |
| Number | 35.0 | 46.6 | 58.2 | 86.1 | 67.4 | 72.1 | 88.4 | 100 | 69.7 | 76.7 | 83.7 | 97.7 |
| Division | 35.7 | 42.8 | 57.1 | 85.7 | 78.6 | 85.7 | 89.3 | 100 | 78.6 | 85.7 | 89.3 | 100 |
| Numerical reasoning | 33.2 | 53.2 | 59.9 | 86.6 | 46.7 | 46.7 | 86.7 | 100 | 53.3 | 60.0 | 73.3 | 93.3 |
| Perception | .... | .... | 5.0 | 55.0 | .... | 5.0 | 30.0 | 75.0 | 5.0 | 10.0 | 25.0 | 70.0 |
| Similarities | .... | .... | 6.6 | 53.3 | .... | .... | 20.0 | 73.3 | .... | 6.7 | 26.7 | 66.6 |
| Pattern analogies | .... | .... | .... | 60.0 | .... | 20.0 | 60.0 | 80.0 | 20.0 | 20.0 | 20.0 | 80.0 |
| Verbal | 48.0 | 64.8 | 83.2 | 35.2 | 50.4 | 66.4 | 93.6 | 60.8 | 73.6 | 85.6 | 85.6 | 96.0 |
| Disarranged words & sentences | 32.7 | 37.7 | 76.3 | 92.7 | 21.8 | 30.9 | 45.5 | 89.1 | 41.8 | 58.2 | 78.2 | 96.4 |
| Analogies | 63.4 | 76.7 | 90.0 | 100 | 60.0 | 73.3 | 90.0 | 96.7 | 79.9 | 86.6 | 93.3 | 100 |
| Contr. association | 66.6 | 79.9 | 86.6 | 93.3 | 46.6 | 73.3 | 86.6 | 93.3 | 80.0 | 93.3 | 93.3 | 93.3 |
| Similarities | 26.7 | 46.7 | 80.0 | 80.0 | 20.0 | 40.0 | 60.0 | 100 | 46.7 | 66.7 | 80.0 | 86.7 |
| Opposites | 90.0 | 100 | 100 | 100 | 40.0 | 70.0 | 90.0 | 100 | 100 | 100 | 100 | 100 |
| Memory | 50.0 | 50.0 | 70.0 | 80.0 | .... | 20.0 | 20.0 | 50.0 | 40.0 | 60.0 | 70.0 | 80.0 |
| Word recognition | 50.0 | 50.0 | 70.0 | 80.0 | .... | 20.0 | 20.0 | 50.0 | 40.0 | 60.0 | 70.0 | 80.0 |

ence appears to be that they are less sharply defined. The omission proportions are more homogeneous within the generic factors. The similarities and disarranged sentences tests appear misplaced in the verbal category and form-completion appears misplaced in the spatial-visual category.

In general, the differences between the Irish and the Italian children are similar, but less accentuated than those between the German and the Italian children. The probable exception is that the number difference for the Irish-Italian children is considerably less clearly defined. While the Irish surpass the Italians for nearly all of the items their largest significant differences are verbal. Thus, the Irish superiority over the Italians is fairly well localized while that of the Germans is much more diversified. For the omitted items between the Irish and the Italians the proportion of significant differences tends to disappear. This is especially true for the perception, spatial-visual, and number items in that order.

Thus, perception differences are negligible and unimportant between all three groups. Spatial-visual differences tend heavily in one direction only for the Germans over the Italians. The Germans are particularly superior in number when compared with either of the other groups. Number differences between the Irish and the Italians are at a minimum and inconsistent. Memory differences are small and even where they are relatively large are inconsequential because of their small weight in the total sample. Verbal differences are of great importance between the Germans and the Italians, of no importance between the Germans and the Irish, and of moderate importance between the Irish and the Italians.

The census data revealed certain interesting facts about the three areas. The contrasts for the areas are particularly valuable in understanding the mental differences found among the three cultural groups. Thus the fact of differential association of social factors with mental factors may be indicated by these census data.

The basis for accepting certain census tracts as constituents of any group was the proportion of our test cases found in these tracts. More than 60 per cent of the Italian children who were examined lived in the four tracts selected for inclusion in the Italian group. An equal proportion resided in the three tracts selected for the Ger-

man community. Forty-six per cent of the Irish testees lived in the two tracts selected as the Irish community.

In 1934 the total population of the German area was 11,909 persons. The population of the Italian area was 12,127 persons, and the population of the Irish area was 11,923 persons. The native white of native parentage represented 27.3 per cent of the population for the German area; 10.8 per cent for the Italian area; and 37.4 per cent for the Irish area. The native white of foreign parentage proportion of the population was 37.5, 39.7, and 33.2 per cent respectively for the German, Italian, and Irish areas. The foreign born white was represented as 34.9, 29.5, and 25.5 for these three groups. Nineteen per cent of the population in the Italian areas was Negro. The Italian area has a considerably smaller proportion of native white than the two other areas. This difference is supplied by the Negroes, practically all of whom live in the Italian area.

Judging by the evidence accumulated in certain related studies such a population differential might well exercise a considerable influence upon a norm of intelligence for the group. From Yerkes report of the Army results, until today the studies in this field have tended to confirm this fact.[6]

A shifting population has certain very important bearings upon intelligence. A group that is relatively stable and thereby less subject to the influence of the larger culture will escape these experiences and as a consequence will do less well on a test standardized on the larger group. The findings for these areas, however, require a modified interpretation. This is necessary because the Germans leave this area entirely but the Italians move into the German area and the Negroes into the Italian area. This would seem to mean that despite a high rate of Italian mobility their failure to move into more privileged areas may counteract the assumed favorable mental influence of movement. Thus, while the population decreases for all three areas for 1930 to 1934 there are slight increases in population manifested for the German and Irish areas from 1934 to 1940 and a continued sharp decline in the Italian area for the same year span. Another aspect of the explanation that appears to operate is that other

[6]Pintner in his text on *Intelligence Testing* and Freeman in his *Mental Tests* have summarized the literature on the relation of intelligence to nativity.

nationality groups than the Italian are the ones who are leaving the area.

This finding appears to be corroborated by a related set of data. This is the material on length of residence of families in these areas. These data show that the Irish are the most mobile group and the Italians the least mobile. This trend is consistent throughout all the year findings from "under four months" of residence to "120 months and over." Thus 32 per cent of the Irish, 27 per cent of the Germans, and 22 per cent of the Italians have resided at one address for under one year. On the other extreme we note that 28 per cent of the Irish, 37 per cent of the Germans, and 41 per cent of the Italians have resided at one address for 60 or more months. These data indicate that, in terms of mobility, the Italian group is the most homogeneous of the three groups. This seems more significant in the light of the fact that nearly 20 per cent of the Italian area is inhabited by Negroes. The latter are habituated to constant changes of residence.

There are approximately 4000 Negroes on the Near North Side. While the Negro population decreased slightly in the interval between 1930 and 1934 it decreased in that area which is predominantly Italian. Twenty per cent of the Italian area is inhabited by Negroes. Slightly over 60 per cent of the entire Negro population on the Near North Side lives in the Italian area. The mean intelligence test scores for the Negroes of this area are significantly lower than those of the German and Irish groups. The mental differences as shown by the test scores between Negroes and the Italians of the same area are negligible.

There are significant if not large differences between the size of the families in these three areas. The largest families are in the Italian area; the smallest in the Irish area. The respective mean size of the family in these areas for the Germans, Italian, and Irish are $3.45 \pm .04$, $3.80 \pm .05$, $3.18 \pm .05$. The standard deviations are 7.76, 2.13, and 2.05 respectively. The critical ratio between the German and the Italian families is 8.97; between the German and Irish families it is 5.51; and between the Irish and Italian families this ratio is 11.07. The studies on the relationship of the size of family to intelligence indicate a slight negative correlation. The work of Sutherland and Thompson, who found a —.20 correlation with 1924 cases aged ten

TABLE 4

THE TYPE OF SCHOOLING COMPLETED BY THE POPULATION 18 YEARS OF AGE AND OVER FOR THE THREE CULTURE AREAS AND FOR THE ENTIRE CITY

| Schooling completed | German | | | | Italian | | | | Irish | | | | City | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Boys | | Girls | | Boys | | Girls | | Boys | | Girls | | Boys | | Girls | |
| | No. | Per. | No. | Per. | No. | Per. | No. | Per. | No. | Per. | No. | Per. | No. | Per. | No. | Per. |
| Elementary school | 3,045 | 72.2 | 3,154 | 75.1 | 3,713 | 74.8 | 2,424 | 70.8 | 3,271 | 65.1 | 2,769 | 64.5 | 668,469 | 57.2 | 654,535 | 55.8 |
| High school | 899 | 21.4 | 850 | 20.3 | 489 | 9.8 | 432 | 10.7 | 1,120 | 23.5 | 1,101 | 25.5 | 325,554 | 27.8 | 379,961 | 32.7 |
| Beyond high school | 156 | 3.7 | 99 | 2.4 | 95 | 1.9 | 52 | 1.5 | 370 | 7.4 | 230 | 5.4 | 119,036 | 10.3 | 26,129 | 7.3 |
| None | 95 | 2.3 | 88 | 2.1 | 627 | 12.6 | 568 | 16.6 | 196 | 3.9 | 188 | 4.4 | 54,161 | 4.7 | 56,910 | 4.6 |

and one-half to eleven and one-half years, or that of Thurstone and Jenkins, who found a correlation of —.09 with 10,000 cases, are pertinent in this connection.

Table 4 is a comparison of the grade completed by the population in these areas which is 18 years of age and over. For purposes of this comparison the completion of eight grades has been described as the elementarry level, 12 grades as the end of the high school level, and 13 grades or over as the completion of some college work. This information for the three areas is of some importance in its relation to the intelligence data.

About 5 per cent of the people in the entire city have completed no grade at school. Less than 5 per cent is the figure found for both the German and Irish areas. However, this figure is approximately tripled for the Italian group. By far the largest proportion of this "no grade completed" in the Italian group is found among the foreign born white. Twenty-three per cent of the males and 36 per cent of the females in this Italian area who are foreign born have completed no grade of schooling. About 8 per cent of the Negro population has completed no grade at school.

Fewer persons in these areas than in the entire city have gone beyond high school. The proportion actually completing high school in these areas makes a reasonable approximation to the city's proportion with the exception of the Italian area. While nearly one-fourth of the other groups have completed high school only 10 per cent of the people in the Italian area have reached this level. The order of the highest grade completion is: the City, the Irish area, the German area, and lastly the Italian area.[7]

[7]This is particularly true in view of the important correlations found by Lang between this educational status and certain social and economic variables.

In a doctoral dissertation on the educational and economic status based on the 1934 census Lang demonstrates that the educational status index correlates more highly with selected population indexes than does the economic status index. The indexes that Lang employed in his correlations were nativity, sex ratio, fertility, large families, older persons, mobility, home ownership, and marriage. His correlations show that as education and rentals increased, the proportion of older persons increased, the mobility increased, the fertility rate decreased, and the size of the family decreased. When education was removed from the correlation little or no relation was evident between economic status on the one hand and nativity, sex ratio, older persons, or fertility on the other. When rental or the economic index was removed the correlations between education and the other variables

In general these findings from the census data agree closely with the intelligence test results. The Italians have significantly less schooling in all determinable respects. The Irish and the German areas resemble one another closely and are above the city average. This is substantially the picture presented by the intelligence test data.

The relative amount of illiteracy in a community has an important bearing upon the intelligence test scores of the children in the community. In general, illiteracy is more evident in the Italian area than in either the German or Irish areas.

The census data show that about 6.44 per cent of the total population 10 years of age and over was illiterate. In the same year 10.1 per cent of the population of the Italian area, 8.0 per cent of the German area, and 1.9 per cent of the Irish area was illiterate. This proportion of illiteracy is negligible for all areas among the native white of native parentage, the native white of foreign parentage, and the Negroes. Nearly all of this illiteracy is found among the foreign born population. Among the last group 28.0 per cent of the Italian area, 18.2 per cent of the German area, and 5.3 per cent of the Irish area are illiterate. A considerably larger proportion of women in all areas are illiterate. Only 4.7 per cent of the Negroes are illiterate. About 90 per cent of the illiteracy is found in the population 21 years of age and over.

The influence of good and poor home environment has been shown by studies of Freeman and his associates and by Burks. One factor influential in such a relationship might very well be the amount of rental paid in the home. The data on median rentals for these areas are available for analysis. They reveal a positive correlation between rentals and intelligence test scores. This is especially true for the Italian area where the rentals are decidedly lower than those for both other groups. In 1930 the median rentals for the German, Italian, Irish, and city areas were 33.0, 19.4, 43.4, and 58.0 respectively. In 1934 this same rental was 18.2, 14.0, 23.0, and 29.1.

The available census data on home-ownership indicate that there is an increase in the proportion of homes owned as the intelligence test

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were high. Thus the measure of educational status or grade completed in school is the best available index of the social milieu. Lang suggests, however, that the school attendance is counted even if only for one day. It tells nothing about the schooling actually completed (7).

TABLE 5

THE NUMBER AND PERCENTAGE OF ILLITERATES IN THE POPULATION 10 YEARS OF AGE AND OVER BY NATIVITY AND RACE FOR THE THREE CULTURE AREAS

| Culture area | Total population | | | Total illiteracy | | | Percentage illiteracy | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| *German* | | | | | | | | | |
| All classes | 12,919 | 6,607 | 6,312 | 1,028 | 452 | 576 | 8.0 | 6.8 | 9.1 |
| Native white | 2,511 | 1,234 | 1,277 | 7 | 4 | 3 | 0.3 | 0.5 | 0.2 |
| Native white foreign born | 4,966 | 2,452 | 2,514 | 26 | 13 | 13 | 0.5 | 0.5 | 0.5 |
| Foreign born white | 5,414 | 2,901 | 2,513 | 988 | 429 | 559 | 18.2 | 14.8 | 22.2 |
| Negro | 3 | 1 | 2 | ... | ... | ... | ... | ... | ... |
| *Italian* | | | | | | | | | |
| All classes | 12,293 | 6,797 | 6,096 | 1,307 | 615 | 692 | 10.1 | 9.1 | 11.4 |
| Native white | 906 | 456 | 450 | 11 | 6 | 5 | 1.2 | 1.3 | 1.1 |
| Native white foreign born | 5,326 | 2,737 | 2,589 | 66 | 26 | 40 | 1.2 | 0.9 | 1.5 |
| Foreign born white | 3,938 | 2,236 | 1,702 | 1,102 | 517 | 585 | 28.0 | 25.1 | 34.4 |
| Negro | 2,672 | 1,331 | 1,341 | 125 | 63 | 62 | 4.7 | 4.7 | 4.7 |
| *Irish* | | | | | | | | | |
| All classes | 13,311 | 7,208 | 6,103 | 250 | 111 | 139 | 1.9 | 1.5 | 2.3 |
| Native white | 4,086 | 2,120 | 1,966 | 5 | 3 | 2 | 0.1 | 0.1 | 0.1 |
| Native white foreign born | 4,470 | 2,244 | 2,226 | 11 | 3 | 8 | 0.3 | 0.1 | 0.4 |
| Foreign born white | 4,316 | 2,611 | 1,705 | 227 | 102 | 125 | 5.3 | 3.9 | 7.3 |
| Negro | 375 | 178 | 197 | 5 | 1 | 4 | 1.3 | 0.6 | 2.0 |

scores increase from area to area. In the German area 21 per cent of the homes are owned, whereas in the Italian area and Irish areas approximately 12 per cent of the homes are owned. There is however a large rooming house district in the Irish area which accounts in part for the low proportion of homes owned. The percentage of homes owned for the entire city is 30. There are few areas in the city where the proportion of homes owned is as low as in these Irish and Italian areas.

The number of families owning a radio in our three groups is another economic index that exhibits the same pattern as the previous indexes. The German area which scores the highest in the tests has more than twice as many families with radios as does the Italian area. The Irish rank midway for both of these items. The actual percentage of families with radios are 45.9, 38.3, 22.3 for the German, Irish, and Italian areas respectively. Thus in the German area there was almost one radio for every other family, whereas in the Italian area there was a radio in approximately every fifth family.

Another index wherein a distinct relationship between an economic factor and the intelligence level appears is in the proportion of families on relief. Here likewise the Italian area shows to disadvantage when contrasted with the other two areas. The proportion of families on relief in Chicago in 1934 was 14 per cent. The same percentage in the Irish, German, and Italian areas was 26.5, 23.2, and 46.7 per cent respectively. This means that nearly twice as many families in the Italian area were on relief as contrasted with the other two sections. Approximately one-half of all the families in the Italian area were on relief in that year.

The preceding paragraphs have outlined certain socio-economic areal differences that correlate broadly with the intelligence test results established by the community tests. These indexes were differentiated in a repetitive implementing pattern that conformed to the data on behavior. The materials were on nativity, population change, length of residence, size of family, schooling completed, illiteracy, median rentals, home ownership, radios owned, and families on relief. All varied concomitantly in greater or lesser degree with the test data variations. Similar materials on the sex ratios, age grouping differentials, types and vacancies of dwellings, family composition, marital status, occupational differentials, delinquency rates, registered

voters, and infant mortality are available in the larger study. These too tend to confirm the related variation of social and mental factors in the areas described in this study.

Once the intelligence tests had been obtained and the census and related data had been carefully ordered and described, it was deemed expedient to obtain selected sections of the sample which had been subjected to the intelligence tests. Three different but related questionnaires were administered. These three were a social relations and home background questionnaire (1), an inventory of neurotic behavior (2), and a cultural inventory or socio-anthropologic scale (12).

The first inventory is constructed of two parts: one a social relations scale, the other a home background scale. It was standardized by the authors. The basic assumption underlying this inventory is that if the home background and the social relationship of the child can be validly measured we may go far in determining and hence understanding and predicting the behavior of the child.

This inventory can be used only for the older children. The seventh and eighth grades in the Italian and Irish communities were provided with the schedules. Of these, the tests of 145 Italian children and 70 Irish children were available for the analysis.

For 68 Italian boys the data on home background show a range of 50-137 with a mean of 91.7. The same figures for 35 Irish boys are 51-138 and 96.2 respectively. For 77 Italian girls the data show a range of 65-130 with a mean of 94.6. The same figures for 35 Irish girls are 72-122 and 106.5 respectively. The variation and reliability indexes are available in the main study. In contrast with the standardization group reported by Cavan these data indicate that the home background of the Italian children deviates considerably from the optimum. The Irish children more closely approximate this optimum. This difference may be interpreted to have a decided effect upon the differential intelligence of the two groups. There is an apparent tendency for home background and intelligence to be closely associated.

On the social relations scale of this questionnaire the data for the Italian boys show a range of 35-82; the Italian girls a range of 24-77; the Irish boys a range of 35-80; and the Irish girls a range of 22-79. Figures on variation and reliability are listed in the dissertation.

It is of interest to note that throughout these comparisons there is a close correspondence between the groups for the social relations scale and that there are comparatively wide divergences among the groups for the home background scale. In terms of the scores there is a positive relation between intelligence and home background and no observable relation between intelligence and social relations.[8] The error of the difference between the groups strengthens this contention. The lack of statistically significant difference in the home background scores might be attributed to the relatively small size of the sample.

Apparently social adjustment is not an important factor in the intelligence differential, whereas home background which involves differences in books, radios, magazines and so on varies with the intelligence of these children. That is to say, assuming the adequacy of the tests, the child can adjust socially in a variety of situations at a variety of intelligence levels but that he needs the equipment of learning that an optimum economic background provides to reach the level of intelligence of such a group.

A detailed item analysis of this questionnaire which is available in the text of the thesis serves to bear out this general conclusion.

The second inventory was one of neurotic behavior. This was given to a group of Italian and German children. Its intent is to establish the emotional stability of the child as this is a product of his experiences. The value of this questionnaire lies largely in the typing of the testees. Thus a score of 0-5 would indicate a good personality adjustment, a score of 6-11 a fair adjustment, and a score of 12-24 a poor personality adjustment.

The scores for 77 Italian and 117 German children are substantially similar to the scores obtained from the standardizing groups. Critical ratios have been computed for all the relationships.

There are no important or statistical differences between the groups for this inventory. Both groups are emotionally well adjusted. No significant sex difference is observable. The spread of the data in terms of the standard deviation is rather broad. A consequent

[8] A series of correlation coefficients between the scores on these scales and the test scores for these children give the following results: the correlation between home background and intelligence is .06± 06 for the Italian children and .17±.08 for the Irish children. The correlations between intelligence and the social relationship scores for the same groups were —.22±.05 and —.06±.08 respectively.

examination of certain proportional differences reveals several variant findings.

Thus 29.4 per cent of the German boys and 48.4 per cent of the German girls are emotionally well adjusted. On the other hand, 33.3 per cent of the Italian boys and 26.3 per cent of the Italian girls are similarly adjusted. The reverse of this position shows that the greatest proportion of children making a poor adjustment are the German boys and that the smallest proportion making such an adjustment are the Italian girls. About 20 per cent of the German boys and only 5 per cent of the Italian girls are making a poor emotional adjustment. This would indicate that more German than Italian children have good emotional adjustments, but that considerably fewer Italian than German children are making poor adjustments.

The implications that these data have for the intelligence test results are not entirely clear. The fact that the opposite ends of the range of scores are contradictory increases the difficulty. It seems safe to assume from these limited results that the emotional differences between the cultural groups are unimportant. Other factors are apparently responsible for the mental differences.

A final inventory utilized in this analysis was a community cultural questionnaire or socio-anthropologic scale. This scale contained 62 traits for which the observer was asked to rank the group with whom he is concerned. The ranking is graduated along a continuum for each trait. The scale was scored by approximately 30 German, Italian, and Irish persons in each of the three communities. Most of those who scored a group were of the culture they rated and had risen to some eminence within it. The exception to this rule of in-group participation in the rating was the public school teachers in the communities.

There were five possible responses for each of the 62 traits. The raters were asked to judge such qualities as reaction speed, ambition, honesty, aggressiveness, religion, family life, and intelligence as these were manifested in some overt behavior.

All three of the groups were rated as approximately similar with respect to the amount of energy that characterizes their everyday life. They are neither very active nor very slow. All three groups are likewise rated as rather talkative. The desire to be outstanding is apparently more pronounced among the Germans than among

either of the other two groups. This is an important mental characteristic. The Germans are considered very obstinate in disagreements while both the Irish and the Italians tend to compromise more readily. In regard to their housekeeping the Germans are extremely neat and tidy, the Italians are not especially neat, and the Irish are held to be rather untidy. In general, the Germans are very thrifty particularly with regard to food; the Irish, on the other hand, save very little, while the Italians appear neither to be too thrifty nor to save too closely. Both the Germans and the Italians appear to be rather aggressive among persons of their own kind. The Irish rating here is not very definitely indicated because the scatter is broad.

The Irish are rated by almost all observers as "fairly bright," whereas the Germans are rated more nearly of average intelligence. The majority of the ratings for the Italians are about equally divided between "fairly bright" and average. An Italian parole officer and an Italian attorney, both residents of the community, rated their group as very bright. One school principal and the assistant principal rated the Italians as rather dull. The order of intelligence as rated by this scale and these judges would rank the cultures in this order: Irish, German, and Italian. The test data tend to confirm this. The ratings for memory are approximately the same although the Germans appear to have a slight lead. This is borne out by the test results. Inventiveness likewise seems to be found more frequently among the Germans than among the other two groups where the preponderance of opinion would indicate that it is seldom found. However, it is notable that the Italians of that area observe inventiveness more generally among their group than the the principals or teachers who are outsiders. The power of concentration seems to be keenest with the Irish to judge by the ratings. It is rated as "good" among the Germans and only "generally fair" among the Italians. This is an important factor in getting high test scores. Teachers and principals divided in their opinion but several rated the Italians as "poor" in this power. Italians of the group felt that the groups' power of concentration was good. Judging from their inventiveness, education, and adaptation to their environments, both the Irish and the Germans are rated as "progressing fairly rapidly," whereas the

tendency for the Italians is not to be very "progressive." The decisiveness of this in mental tests is obvious.

The three groups are about equal with respect to imaginativeness, if one is to judge by their use of art, recreation forms, stories, and conversation. The sense of beauty as judged by clothes, ornaments, home furnishings, is "good" among the Germans, "fair" among the Irish, and approaching "good" among the Italians. Fondness for music is "fairly good" among the Germans and the Irish and approaches "very great" among the Italians.

Their habits of work and the amount of work accomplished shows the Germans to be quite industrious and the Irish and Italians only moderately so with an inclination toward laziness.

Feeblemindedness is found infrequently among the Germans and the Irish. The great majority of the Italian raters also find that feeblemindedness occurs infrequently. Our principals and teachers, however, think that it occurs frequently. One of our Italian parole officers is of the latter opinion. Nervous habits occur less frequently among the Germans than among the Irish and the Italians.

In general, the presentation of the data from this scale would indicate more similarities than differences between the three groups of people. Rarely were evident differences, large differences. Most of the 30 odd raters had difficulties with the sex question; quite a number failed to respond to certain other questions. We might say in passing that there may be less actual differences in the characteristics of these nationalities than in the attitudes of the raters themselves. All of the differences that we have presented were not consistently definite or clear-cut. Bi-modal and multi-modal curves were not infrequent. Many of the raters objected in one way or another to the distortion they might conceivably be creating in marking the questionnaire so specifically, particularly in view of the individual and the sub group differences.

Underlying the orientation of this study has been the fundamental assumption that knowledge, the idea, or mental behavior is socially acquired. This concept has provided the impetus to several subsidiary assumptions that have produced and colored the foregoing discussion.

An attempt has been made to analyze by a series of contrasts certain related aspects of community life. An interest in the develop-

ment and living of a community should scarcely place too much faith in the immediately evident causes. These contributing causes are best designated as instrumental causes; they become intelligible only in the light of a broader and more fundamental causation. It might be well to question the methodological validity of relating effects to intermediary causes which are themselves effects of a much broader and less tangible order of causation. A partial answer to this question lies in the preparation of useful indexes of this broader causation all of which may be meaningfully related to the essential behavior patterns of the community.

Since the behavior of individuals or groups is based upon their way of evaluating the social reality or the rôles that they play, it was felt that such impersonal elements as census data could only serve to delimit in a general quantitative sense the setting of the community in which behavior was manifested. The fact that the median rental was measurably different in those communities wherein there are measurable behavior differences means little or nothing for the explanation of behavior. It means merely that there is a situation in which this and a variety of related differences exist which may be suspected as having an effect upon behavior. From this point forward different scientific tools must be utilized to evaluate the possible effects of such differences on behavior. Since the phenomena of behavior possess a logic of their own they must needs be measured by devices other than those employed with non-human entities.

This means that this study has merely set the stage for an investigation of the behavior in these areas. The quantitative technique used with the non-sociologic data in these communities has merely served to delimit the points of study more adequately. Since the purpose of the study was not to show any point to point relationship between such variables as the presence or absence of a radio and the size of the intelligence quotient, no precise measures of relationship are needed. It was sufficient to indicate that radios did apparently influence intelligence without providing the precise degree of this influence. The essential nature of this influence once established could now be determined by the concepts of sociologic science.

It is to this end that all the contrasting artifacts and culture items have been collected and developed for these communities. Since ideas or understanding are possible only by virtue of contrast it was

useful to know what community or group differences existed in both behavior and non-behavior items. Once aware of such quantitative differences as amount of money or facility in number it becomes possible to set up criteria for determining the grounds for such differences.

A variety of these differences have been accumulated for these communities. That the differences tend to vary together in certain determinable directions is interesting. This will permit one type of analysis of the sample in which such variation occurs. That among separate groups there are further variations—that is inter as well as intra group variations—permits the development of another set of criteria for a somewhat different evaluation of behavior.

No final conclusions regarding behavior are possible with the facts presented in this study. There is no satisfactory way, for example, of determining whether or not, and to what degree, a median rental influences the large differential in ability to deal with numbers found between the groups studied. That is to say, poverty per se does not bring about behavior differentials. Only the individual or group evaluation of this poverty will create definite patterns of behavior.

That means then, that all the items which have fallen within the scope of the analysis, those indicated in this paper, as well as a variety of other similar data such as social factors or the specific test item differences for the groups, are presented merely as rough indicators of precisely where a more refined type of behavior analysis would be most fruitful. With the insights gained from this study, interviews, life histories, personal diaries, letters, and related materials can be directed and analyzed more efficiently and concretely. A large amount of work in this direction is already in process.

## References

1. Burgess, E. W., & Schonle, R. C. Things I like to do. Human Relations Scale No. 1, 1932.
2. Burgess, E. W. Neurotic Inventory. (A series of questions compiled by the author to indicate the presence or absence of emotional stability.)
3. Durkheim, E. Les Formes Elementaires de la Vie Religieuse. Paris: Alcan, 1925. Pp. 647.
4. Freeman, F. N. What is intelligence. *Survey,* 1936, **66**, 17-19.
5. ———. Mental Tests. Boston: Houghton Mifflin, 1939. Pp. 460.

6. Lang, R. The Educational and Social Status of Chicago. Unpublished Ph.D., dissertation, Department of Sociology, University of Chicago, 1938. Pp. 60.
7. Mannheim, K. Ideology and Utopia. New York: Harcourt Brace, 1936. Pp. 318.
8. Mead, G. H. Mind, Self, and Society. Chicago: Univ. Chicago Press, 1934. Pp. 400.
9. Pintner, R. Intelligence Testing. New York: Holt, 1931. Pp. 555.
10. Redfield, R. Culture changes in Yucatan. *Amer. Anthropol.,* 1934, **36**, 57-69.
11. Simmel, G. Soziologie. Munich and Leipsig: Duncker & Humbolt, 1908. Pp. 782.
12. Steggerda, M., & Macomber, E. Mental and social characteristics of Maya and Navajo Indians as evidenced by a psychological rating scale. *J. Soc. Psychol.,* 1939, **10**, 51-59.
13. Weber, M. Wirtschaft and Gesellschaft. Tubingnen: Mohr, 1925. Pp. 1840.

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